

TC 15203

IN THE SPECIFICATION:

JUN 16 2003
TC 15203

Please amend the paragraph beginning on Page 1, line 6 as follows:

The present invention relates to a method for manufacturing carbon/silicon-carbide composite used as a thermal resistant and an anti-oxidation component, in more detail, relates to the heat processing and infiltration process needed [to] for the manufacturing method.

Please amend the paragraph beginning on Page 16, line 3 as follows:

300 pieces of carbon/phenolic perform are cut to have all same patterns with each other, and stacked into a metal mold using involute stack method. When the perform are stacked, the suspension composed of BN and carbon black powder is applied to the perform while heating. The length of fabricated perform is 150mm, maximum out diameter is 150mm, and minimum outer diameter is 70mm. The perform is totally hardened in an autoclave using heat and pressure. Post-hardening, the perform is maintained at the temperature of 140°C for 5 hours, and the temperature is risen as 1°C/min till the temperature reaches at 200°C. The temperature is maintained for 12 hours at 200°C, and the perform is cooled down for 5 hours at the temperature below 50°C. Holes with 1mm diameter are penetrated at least 30mm interval to circumference direction and vertically to the outer surface on the parts that has thickness larger than 50mm. In addition, holes with 1.5mm diameter and 10mm depth are penetrated at 20mm interval to length direction. The carbonization and heat processing condition are same with that of the first implement. However, in order to discharge the thermal cracking gas to outside of the material sufficiently, temperature rising speed is 1°C/min between the temperature of 300°C and 700°C wherein the thermal cracking happens most. And in order to increase the crystallization rate of carbonized product which is made by

carbonizing of the phenolic resin, the temperature is maintained for 5 hours at maximized heat processing temperature 2500°C. The sintering process is performed as the same way with that of the first implement, and the sintering is maintained for 7 hours with regard to the reaction of carbon black and the liquid metal silicon. The BN protects the carbon fiber from the attack of the liquid metal silicon during the sintering process. [And] Moreover, the tenacity is increased by [above] greater than 20% [comparing] as compared to the tenacity of the product [that of not using] when the BN is not present.